JumpPack

Games Launcher System Requirements Specification

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Overview

This is a system requirements specification (SRS) document for a software system named 'Jump pack'. Jump pack is a software system targeted mainly towards an audience of PC gamers but the system can also serve as a platform for small game companies or indie game developers. This document will provide a detailed description of the system to be created. Also in this document there will be definition for the following: Target users of the system, user requirements, elicitation process and system requirements. For these requirements there will also be distinction whether they are functional or non-functional. Finally we will clearly specify all of the requirements for the software system as testable statements.

1. Introduction

1.1 Purpose

The purpose of this document is to present a detailed description of the system that will be designed and implemented. It will explain the purpose, features and interfaces of the system, as well as what the system will do and the constraints under which it must operate as specified by our customer. Also if the current team cannot complete the software then this document can be used by future teams to create another version of this software which still meets the requirements specified in this document.

1.2 Scope

User's with hundreds of games will sometimes struggle finding a particular game or may want a simple alternative to similar systems. Jump pack provides the user a simple platform for all of their games. On startup the system will automatically discover games stored on the user's PC and add them to their library. The user can also add games manually to their library. Once a game has been added to the user's library, the system can then run it. A library is a local database containing each game's metadata with attributes based on user activity: time played, date last played and details about the game such as: title, publisher, release date, etc. Jump pack also serves as an advertising platform for game developers and their newly anticipated releases. We will have a database server to provide game metadata to the system such as: title, publisher, release date, file path regular expression and to store user survey results from the system.

1.3 Target audience

The target audience are mainly PC gamers looking for simple alternatives and game developers looking for a platform to advertise their games on.

1.4 Overlapping functionality with similar systems

Steam and Jump Pack have overlapping functionality, for example both steam and Jump Pack create the user's library so they can add games manually and suggesting new games to play and advertising new anticipated games and showing games which users are playing in real time.

1.5 Technical glossary

- Library- A database containing metadata on all of the user's games, such as the executable file path, date/time last played, hours played, etc.
- Executable files - '.jar', '.exe' extension files.
- Special characters - This refers to the following "!"#$%&'()*+,-./:;<=>?@[\]^_`{|}~"
- MetaData - Meta data (2014) defines metadata as "data that describes data"

2. Elicit the requirements

In order to ascertain the requirements of the system we decided to conduct a survey of potential customers to gauge their needs and if these needs were adequately satisfied by game launchers currently on the market. In order to achieve this we designed an online survey as we expect the vast majority of our users to be tech savvy and it allows us to survey potential users from all over the world and automatically collect their responses. In the design of our survey we also allowed additional feedback from our recipients.

Would you like to receive recommendations based on your recently played games?

33 responses

- Yes
- No

84.8%
15.2%
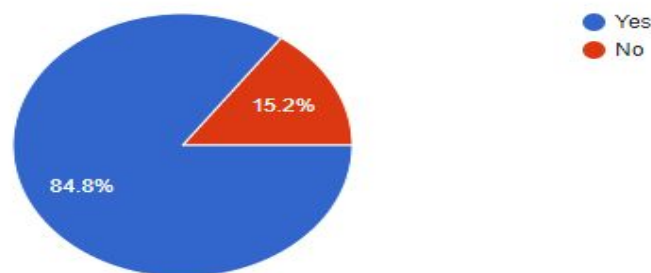
Would you like a tracking process of how many hours you have played?

33 responses

- Yes
- No

87.9%
12.1%
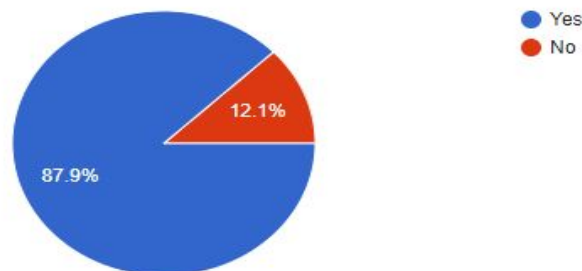
Programs I use must look appealing.

33 responses

0 (0%)   0 (0%)   0 (0%)   2 (6.1%)   0 (0%)   5 (15.2%)   3 (9.1%)   5 (15.2%)   8 (24.2%)   6 (18.2%)   4 (12.1%)
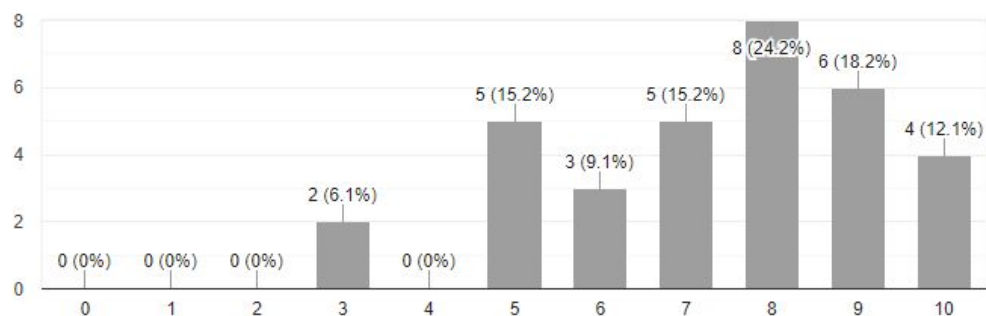
As shown in the diagrams above many of our initial expectations were validated by the response we received with many initial feature ideas receiving 80%+ positive responses.

From the data we collected we can say that:

- Only 24% of users surveyed were completely satisfied with their current game launchers
- Consumers feel that speed and low load in times is the most important element of a good games launcher with 51.5% rating it as the most important thing in a game launcher.
- Tracking games while idle was only a preference for 38% of user, and as such will be implemented as an optional feature
- User suggestions asked primarily for more social features, with suggestions including timelines of friends, an ability to look for games in client and the ability to order food without needing a seperate app.

While we believe that these responses show a strong indication of what is required of our system we acknowledge the need for additional feedback during the development of the project to ensure that our customers are satisfied with the end product produced and that is a sufficient upgrade compared to our competitors to warrant users switching to our service.

3. User requirements

Internet connection:
The user must not require an internet connection to launch, compare, sort, add or delete and edit games from their library.

User interface:
The user requires a simple user interface for launching, comparing, sorting, adding, deleting and editing games from their library the user interface will also allow game developers to advertise new game releases and allow the system to suggest new games for the user to play based on survey results. The user interface will be split up into three sections: library, suggested games and new releases.

Startup:
The user opens jump pack, the system starts discovering games, adding them one by one to the library and afterwards presenting the games to the user in a GUI with options for sorting or categorising the games in the library.

User gaming activity:
Once the system launches a game, the user will want the system to record accurately the total playing time of that game. Once the user has stopped playing the game, they will see their total playing time and date last played updated.

Suggested games:
After a while of playing games, the system asks the user to take a survey. The users accepts and answers all of the questions given. The user will start to notice their 'suggested page' is beginning to match their gaming interests.

New releases and anticipated releases:
The user wants to see newly anticipated game releases and most popular games among jump pack users. The user clicks on 'New releases' page and the system presents the user with many new game releases that are upcoming or already out.

Adding one or multiple games to the library:
The user decides to add a game manually, they go to their 'library page', click on 'add game(s)' and the system provides a browsing window for the user to add an executable file for the game they want to add. Once the user has finished and clicked 'add file' in the browsing window, the system will ask the user if they want to add another game to their library. All of the games chosen to be added will be shown in a list. The user then clicks 'add games' to save changes.

Deleting a game from the library:
The user decides they want to delete a game from their library. They first go to their 'library page' and right click on the game they want to delete. Once they've right clicked the game, the system will provide a drop down box for which the user is presented with options, the user clicks 'delete game' and the game is removed from the library and its metadata deleted permanently from the local database.

Editing game metadata:
The user will sometimes want to edit the metadata for a particular game. Within the library page the system can provide the user a form to edit metadata such as: title, publisher, producer, executable file path. Once changes have been made, they are then saved to the user's library.

System settings:
The ability to change the functionality and settings of the launcher, such as adjusting how often the user wishes to see information on upcoming games as well as launcher wide settings such as night mode or enlarged text for the visually impaired. As system settings contains accessibility options it should be available from any page in the launcher, identified by a cog symbol.

4. System requirements

4.1 Functional requirements

Requirement	How it will be accomplished
A games library should be available when booted up for the first time	On first time start up the system will create the user's library and with consent will automatically search the user's hard drive for any games installed. Games found will be shown to the user in a user interface so they can select which games to add to their library and which games to discard.
Users should be able to see and alter their games library with ease.	Once the user's library is created, the system must provide a simple user interface for viewing, sorting, adding, editing, deleting and comparing games. The user interface will also provide developers with a platform to advertise their new games if the user is connected to the internet.
All games in the library should have sufficient information about them saved.	The system must store the user's library as a local database. Each game contains metadata such as: title, publisher, producer, file path, release date, total time played and date last played.
New games should be added to the games library	The system will search the "Program Files" directory for any new games to add to the library automatically or on request.
Adding new games to the library should not impede normal use of the system	The system must search through quickly and take no longer than 30 seconds before giving up.
Changes to the games library should be permanent	The system will store the user's library in a database when any changes occur.
Users should be able to manually add programs	The system will provide a button for the user to search through and add a program into their library.
Only games should be accepted to the library	Only executable files are accepted.

Added games should have accurate details	The system provides a form for the user to edit and update information relating to a manually added game.
Data supplied by the user should be valid	The system will validate user input and will not allow invalid or compromised data.
The user experience should be customizable	The system should provide a button to access options for the user account.
Accessibility features must be included.	The user should be able to enlarge or shrink font and switch between a night and day mode.
Users should be able to choose when they see recommendations	The user should be able to change how often they see recommended games. The system should check how often the user wishes to be shown recommendations. The system should store when the user was last shown recommendations
Display options should be consistent throughout the whole client.	When font size is changed all font shown to the user should be enlarged or shrunk. When night mode is selected colours should be darker.
Changes made by the user should be remembered.	Any changes made should be stored and maintained between logins.
Recommendations shown to users should be up to date and relevant to their interests.	If enough time has elapsed between when they were last shown recommendations then new recommendations should be shown. This is done by loading a new page of the UI that has images of the games along with text descriptions and a link to check out more information about the game, the link when clicked will send you to the related games store page.

4.2 Non-functional requirements

4.2.1 Performance Requirements

The User Interface is:
- Intuitive and interactive, an amature or an experienced user is able to accomplish his tasks without any help or error being given feedback when information is entered wrong;

- Fast responsive, the user of the system is able to accomplish his tasks in a short time of a click (in a maximum of 2 seconds).

Example: Our system has a chat feature which requires connection to internet to use it, being able to use the rest of the features without this connection. The system's response to the user trying to use this feature without connection is a pop up message telling him that he needs this connection to use this feature.

4.2.2 Operating Constraints

- The user will need at least the Java Runtime Environment 6 installed to be able to run this application.

4.2.3 Platform constraints

The system will run on all platforms for which there exists a JVM. (This holds for all major desktop operating systems, including Windows, Mac OS and Linux);

Windows
- Windows 10 (7u85 and above)
- Windows 8.x (Desktop)
- Windows 7 SP1
- Windows Vista SP2
- Windows Server 2008 SP2 and 2008 R2 SP1 (64-bit)
- Windows Server 2012 (64-bit) and 2012 R2 (64-bit)

Mac OS X
- Intel-based Mac running Mac OS X 10.7.3 (Lion) or later.
- Administrator privileges for installation.

Linux
- Oracle Linux 5.5+
- Oracle Linux 6.x (32-bit), 6.x (64-bit)3
- Oracle Linux 7.x (64-bit)3 (7u67 and above)
- Red Hat Enterprise Linux 5.5+, 6.x (32-bit), 6.x (64-bit)3
- Red Hat Enterprise Linux 7.x (64-bit)3 (7u67 and above)
- Suse Linux Enterprise Server 10 SP2, 11.x
- Suse Linux Enterprise Server 12.x (7u75 and above)
- Ubuntu Linux 10.04 and above

4.2.4 Modifiability

Changes or updates of the system like bug fixes that might appear or simply improvements of the design and new features if needed are planned to be made in a short time as we are a team that aims to the satisfaction of the user in the consumption of our service.

4.2.5 Security

User data like passwords should be encrypted with an algorithm before entering in the database so the password that will be on the database won't be the real user's password but an encryption of it. All information stored about users should comply with the Data protection act (2018) and all other legal obligations.

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Data protection act 2018